Evidence Table Appendix A

Author/ Year	Study Design	Demographics	Intervention, outcome measures; instruments	Results	Comments
Gorecka, 1997	Randomized control trial, pts referred to 9 regional LTOT centers in Poland, no blinding Inclusion: FEV1/FVC ratio <70% predicted PaO2 measures 56-65 mmHg Exclusion: Diseases of other organ systems that may impact survival Avg observation time: 40.9 mos	n= 135 control group= 67 LTOT group= 68 age 40-80 mean age: 61.2 76% male *participants in the control group cont to receive usual COPD care including bronchodilators, diuretics, steroids, antibiotics at the discretion of the physician *participants in the LTOT group received oxygen to maintain PaO2 above 65mmHg prescribed for at least 17hours per day	Mortality	70 patients died during the observation period, 32 controls and 38 in the LTOT group; the majority due to a progression of COPD Cumulative survival rate: Yr 1: 88% Yr 2: 77% Yr 3: 66% Cox regression analysis: No difference in survival between control and LTOT groups Survivors were younger, had better lung function, and higher BMI	
Hjalmarsen, 1999	Retrospective study Inclusion criteria: Group I PaO2 ≤ 7.3 kPa (55 mmHg) or Group II PaO2 up to 8.0 kPa (60 mmHg) if coexisting polycythemia or cor pulmonale Oxygen use- at least 15h per day	n =124 Group I; n=76 Group II; n= 48 mean age: 68	Mortality Subgroup analysis based on lung function, gender, hospitalization	Group I survival 2 Yr: 73% 5 Yr: 50% Group II survival 2 Yr: 78% 5 Yr: 40% Male survival: 2 Yr: 56% 5 Yr: 30% Female survival: 2 Yr: 83% 5 Yr: 60% Group II: PaCO2 and FVC showed	Patients with PaO2 of 60mmHg only comprised 39% of the population being studied

				significant impact on survival Lower survival in patients treated in the general hospital setting **No statistically significant survival benefit when comparing LTOT users Group I and II**	
Sliwinski, 1992	Prospective cohort study Inclusion: consecutive referrals for assessment of eligibility for LTOT PaO2 ≤ 55mmHg or PaO2 56-65 mmHg if accompanied by radiologic signs of pulmonary HTN, signs of RVH, or elevated hematocrit Pts underwent a 4wk probationary period to ensure they cont. to meet inclusion criteria Exclusion: any condition that may influence survival such as HTN, ischemic heart disease, left heart failure, cirrhosis, renal failure, diabetes, or malignancy Patients were divided into Responders and Nonresponders, based on changes in pulmonary artery pressure in response to LTOT Treatment period: 2 yrs or until death	n=46 Responders n=7 Non responders n=39 83% male	Acute effect of oxygen on pulmonary hemodynamics Mortality	Avg oxygen use 14.6h/day 2 Yr Survival Rate Responders : 69% Non-Responders: 57% Hospital Admissions: Responders: 0.8 Non-Responders: 1.4	Small number of participants in the responder group; no information regarding the specific number of pts with PaO2 between 56-65 mmHg
Sandek, 2001	Prospective cohort study Inclusion:	N=14 Male 79% Mean age: 69	Changes in pulmonary physiology	No significant changes to pulmonary	Very small sample size

	irreversible airflow obstruction 2 PaO2 measures < 7.3 kPa or 7.3-7.9kPa with chronic right heart failure Oxygen prescription greater than 15h per day for 6 months			physiology noted with LTOT use.	